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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/153,781
Filing Date: September 16, 1998
Appellant(s): ROSENBERG ET AL.

Carl Sanders
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/15/09 appealing from the Office action mailed 12/18/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

5,685,775	Bakoglu et al	11-1997
5,299,810	Pierce et al	04-1994
5,956,484	Rosenberg et al	09-1999

M. Yamakita et al. "Tele-Virtual Reality of Dynamic Mechanical Model", Procedding of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems, Raleigh, NC July 7-10, 1992, pads 1103-1110.

Ming Ouhyoung et al. "a Low-Cost Force Feedback Joystick and its Use in PC Video Games", IEEE transactions on Consumer Electronics Vol. 41 No. 3, August 1995 pages 787-794.

Kelly, A.J et al., "MagicMouse:Tactile and Kingesthetic Feedback in the Human-Computer Interface using an Electromagnetically Actuated Input/Output Device", Department of Electrical Engineering University of British Columbia, October 19, 1993, pages 1-27.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 12-15, 17-23, 25, 36-40, 42, 43, 58-70, 72-76, 78-82, 92-96, 98-111, 113-116, 120, 121 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-67 of U.S. Patent No. 5,956,484. Although the conflicting claims are not identical, they are not patentably distinct from each other because the invention defined in the claims at issue is an obvious variation of the invention defined in the claims of the patent.

The following is an example for comparing claim 12 of this application and claim 25 of the patent.

Claim 12 of this application	Claim 25 of the patent
A system comprising: **a first computer** means coupled to a network means; and **a second computer means coupled to said network means**, said second computer means remote from said first computer means,	A networked force feedback system comprising: A network; **a first computer coupled to said network: and a second computer coupled to said network**,
said second computer means configured to produce a graphical environment, wherein said graphical environment is based, at least in part, on information transferred from said first computer means to said second computer	said second computer including a visual display and a human/computer interface device capable of providing a second computer input, said **human/computer interface device including at least one actuator** capable of

means over said network means, and human/computer interface means, wherein said **human/computer interface means comprises an actuator means**,	**providing physical force feedback in response to a force feedback signal provided by said second computer**,
said **second computer means further comprising means for interpreting said haptic feedback information repeatedly received from said first computer means over said network** means, updating said graphical environment based, at least in part, on said information, and causing said actuator to generate a physical feel sensation at said human/computer interface means based, at least in part, on said haptic feedback information.	said second computer developing a web page on said visual display from information received from said fist computer over said network, said web page being associated with stored force feedback information, wherein said **second computer produces said force feedback signal based on said information received from said first computer over said network**, based on said stored force feedback information, and based on said second computer input.

As can be seen above, the invention defined in claim 12 of this application is an obvious variation of the invention defined in claim 25 of the patent.

Claim Rejections - 35 USC § 103

3. Claims 12, 13, 17-23, 36-40, 42, 43, 58-70, 72-76, 78-82, 102-104, 106, 108-111, 113-116, 120, 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakoglu et al (US

5,685,775 hereinafter Bakoglu) in view of Pierce et al (5,299,810 hereinafter Pierce) and Yamakita et al ("Tele-Virtual Reality of Dynamic Mechanical Model", hereinafter Yamakita).

With regard to claim 12, Bakoglu discloses a method and apparatus for playing the same video game by a number of players at remote locations over a telephone network via modem. Fig. 2 of Bakoglu discloses a system comprising a first computer (video game machine for player 1) coupled to a network means (phone network); a second computer (video game machine for player 2) coupled to the network means, the second computer remote from the first computer. Bakoglu also discloses the system comprising control unit (human/computer interface means) and the first and second computers configured to produce graphical environment, i.e. display of the video graphical images.

Bakoglu does not disclose the first and second computers configured to transfer and update the graphical environment information and haptic feedback information between the first computer and the second computer over the network means. Bakoglu also does not disclose the human/computer interface means comprising an actuator means and causing the actuator to generate a physical feel sensation at the human/computer interface means based on the haptic feedback information.

Pierce teaches a video system (figures 1, 2) comprising a first computer (74) and a second computer (76), the first computer produces and updates first image based at least in part on information received from a second computer (figure 2, item 76) and receives haptic feedback information from the second computer, and based at least in part on the first computer input (column 1, lines 57-69 and column 2, lines 1-10; col. 5, lines 17-45; col. 9, lines 32-60), the second computer produces and updates the second image based at least in part on information

received from the first computer and receives haptic feedback information from the first computer, and based at least in part on the second computer input (column 1, lines 57-69 and column 2, lines 1-10; col. 5, lines 17-45; col. 9, lines 32-60). Pierce also teaches the human/computer interface means comprising an actuator means (26, 28) and causing the actuator to generate a physical feel sensation at the human/computer interface means based on the haptic feedback information (col. 4, line 67 to col. 5, line 4).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the video game system of Bakoglu to comprise video games at both sites that can transfer and update the graphical environment information and haptic feedback information between the first and second computers and to have a haptic sensation actuator as part of the user interface as taught by Pierce so as to provide a realistic simulation of the control of the game play and to provide multi-sensor indication of events that are initiated by another operator, or the computer.

Furthermore, Yamakita illustrates in Fig. 1 that two Sites 1 and 2 remote each other transmitting and receiving position and haptic information (player action information) to and from a satellite such that players will feel as if they are playing at the same location where it is clear that the satellite function as a server network between the two computers. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the system of Bakoglu as modified by Pierce to use a server network for transmitting and receiving position and haptic information (player action information) between two remote computers via a network as taught by Yamakita such that the remote player can feel the game

play actions/sensation caused by the actions of the other player to provide a more enhanced realistic simulation of game play.

With regard to claim 13, Pierce teaches the second computer input comprises at least one of a position input for the human/computer interface device, and a button click input (figure 2, item 90).

With regard to claim 17, Pierce teaches "computer information comprises information representing haptic feedback information" (figure 1, item 114) ; Bakoglu teaches "said first computer is remote from said second computer" as claimed.

With regard to claim 18, Pierce teaches computer information includes haptic feedback information indicating a tactile sensation to be output by said second haptic feedback device (figure 1, item 58 and figure 2, item 26).

With regard to claim 19, Bakoglu as modified by Pierce and Yamakita teaches sending second computer information from said second computer to said first computer over said network.

With regard to claim 20, Pierce teaches said second computer information includes said input information from said second haptic feedback device and haptic feedback information a tactile sensation to be output by said first haptic feedback device (figure 1, item 58 and figure 2 item 26).

With regard to claim 21, Pierce teaches said image includes displaying a first graphical object controlled by a user of said first haptic feedback device, and displaying a second graphical object controlled by a user of said second haptic feedback device (figure 1).

With regard to claim 22 Bakoglu as modified by Pierce does not illustrate said first and second graphical objects are paddles. Pierce instead illustrates them being vehicles such as a car however since a boat is also a vehicle and further since boats can have paddles such a feature would be obvious and simply viewed as merely directed toward an obvious intended use of the Bakoglu as modified by Pierce gaming system.

With regard to claim 23, the combination of Bakoglu and Pierce teaches said first and second graphical objects are displayed in a web page is viewed as an obvious feature of a network because the window opened up is considered the web page when talking to a remote user.

With regard to method claim 38, note the discussion of claim 12 above. Pierce teaches said second computer information comprises position information describing a position of a manipulandum of a second haptic feedback device (figure 1, items 68 and 60).

With regard to claims 36, 37, 39, and 40, the combination of Bakoglu and Pierce was shown above read on all limitation of these claims.

With regard to claims 42-43, the limitations are taught by the combination of Bakoglu and Pierce.

With regard to claim 58, note the discussion of claim 12. Furthermore, Bakoglu and Yamakita teach receiving a first computer information from a first computer at a server computer over a network. Pierce and Yamakita teach the computer information comprising haptic feedback information.

With regard to claims 59-70, the combination of Bakoglu and Pierce was shown above to read on all these limitations.

With regard to claim 75, Pierce teaches "said information comprising haptic feedback information and position information for a graphical object displayed by said second computer" (figure 1 illustrates graphical objects on two displays and items 110 and 114 correlate to haptic feedback).

With regard to claims 72, 73, 115, Bakoglu would have the first computer (player 2) is a client computer and said second computer is a server computer (first player) or two computer are client computers because it is obvious that when you are playing the computer instead of another actual user you would refer to one computer as sever and the others as clients.

With regards to claims 74 and 76, the combination of Bakoglu and Pierce was shown above to teach all of these limitations.

With regard to claim 78, the combination of Bakoglu and Pierce teaches said visual display is updated by moving a graphical object within a graphical game environment based on position data received from said haptic feedback device, where a collision between said graphical object and a different graphical object can detected to cause said tactile sensation to be output (see Pierce figure 1, item 114).

With regard to claim 79, the combination of Bakoglu and Pierce teaches said first computer receives an indication of a gaming event in said information, said first computer synchronizing said visual display associated with said gaming event with said tactile sensation that is associated with said gaming event (see Pierce figure 1, item 114 and 110).

With regard to claim 80-81, the combination of Bakoglu and Pierce teaches said gaming event is a collision, explosion (see Pierce figure 1, item 114 and 110).

With regard to claim 82, the combination of Bakoglu and Pierce teaches said visual display is updated at a rate substantially faster than said tactile sensation.

With regard to method claims 102, 103, note the discussion of claim 12 above. In addition, Bakoglu teaches "a first memory coupled to said first processor" and "a second memory coupled to said second processor" (see Fig. 4, the buffers correspond to memory).

With regard to claims 104, 106, Pierce teaches "said first force feedback device is coupled to a manipulandum configured to move in two degrees of freedom" (figure 2, item 62 "Steering Handle" act as joystick for control of graphical "vehicle").

With regards to claim 108, the combination of Bakoglu and Pierce was shown above to teach all of these limitations where the first computer and the second computer communicate with at least one server computer ("master") over said network.

With regard to claim 109, Pierce teaches the first image includes a graphical object that can interact with a projectile (e.g., col. 11, lines 3-17).

With regard to claims 110, 111, Pierce was shown above read on all limitation as claimed (e.g., col. 11, lines 3-66).

With regard to claim 113, Pierce teaches a visual display (42) coupled to the first processor.

With regards to claim 114, the combination of Bakoglu and Pierce was shown above to teach all of these limitations where a server computer connected to the network.

With regard to claim 116, the combination of Bakoglu and Pierce do not illustrate the use of well known standards of practice such as TCP/IP protocols and since the references lacks specific communication details it would have been obvious to one of ordinary skill in the art at

the time of invention was made to implement these features because the combination of Bakoglu and Pierce must use some communication method and one would be motivated to use conventional methods of communication because there is less risk in using standards that are known to work. The examiner also serves official Notice that TCP/IP existed before applicant's effective filing date.

With regard to claims 120, 121, Pierce teaches the processor as claimed.

4. Claims 14-15, 25, 92-96, 98-101, 105, 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakoglu and Pierce and Yamakita, and further in view of Ouhyoung et al. ("A low-Cost Force Feedback Joystick and its use in PC Video Games", hereinafter Quhyoung) and Kelley et al. ("MagicMouse: Tactile and Kinesthetic Feedback in the Human-Computer Interface using an Electromagnetically Actuated Input/Output Device", hereinafter Kelley).

With regard to claim 14, the combination of Bakoglu and Pierce and Yamakita was shown above in regard to the rejection of claims 12.

The combination of Bakoglu and Pierce and Yamakita does not illustrate the use of, "a local controller means that communicates with said second computer means",

Ouhyoung teaches a local controller with the above claim features in figure 3b and note also used in a PC Video Game.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Pierce and Pierce and Yamakita device to have the above features as taught by Ouhyoung because Kelley on page 9 makes a motivational statement,

"a dedicated microcontroller is employed to distribute the computational load and to afford adequate force feedback".

With regard to claim 15, the combination Bakoglu/Pierce/Yamakita/Ouhyoung/Kelley teaches a system as recited in claim 14 wherein said second computer means sends a force feedback command to said local controller means that can be parsed by said local controller means such that said controller means can control said actuator means in response to said force feedback command in a control loop with said sensor means (see Ouhyoung figures 3b and 4).

With regard to claim 25, the combination Bakoglu/Pierce/Yamakita/Ouhyoung/Kelley teaches a method as recited in claim 17 wherein said second haptic feedback device includes a local controller that communicates with said second computer, wherein said local controller parses a haptic feedback command sent by said second computer such that said local haptic can control said actuator in response to said haptic feedback command in a control loop with at least one sensor of said second haptic feedback device (see Ouhyoung figures 3b and 4).

With regard to claim 105, the combination Bakoglu/Pierce/Yamakita/Ouhyoung/Kelley teaches a system as recited in claim 104. in addition Pierce teaches "at least one sensor for sensing positions of said manipulatable object " (It is clear that a steering wheel such as item 62 must have a sensor detecting its position in order for it to work and control the graphical object).

With regard to claim 107, the combination Bakoglu/Pierce/Yamakita/Ouhyoung/Kelley was found above to teach all of the limitations of claim 107.

With regard to method claim 101, the combination of Bakoglu/Pierce/Yamakita teaches "each of said plurality of client computers in communication with the Internet" (claim term

"internet" is broadly read to be any modem network), enabling said computer-game simulation of said particular client computer to determine if said first graphical object displayed on said client computer has collided with said second graphical object and determine a tactile sensation to generate if said collision has occurred (see Pierce et al. figures 3 and 4). Ouhyoung teaches a local controller with the above claim features in figure 3b and note also used in a PC Video Game. Thus, the combination Bakoglu/Pierce/Yamakita/Ouhyoung/Kelley was found above to teach all of the limitations of claim 101.

With regard to claims 94-96, 98-100 the combination of Bakoglu/Pierce/Yamakita/Ouhyoung /Kelley was shown above to read on all of these limitations.

With regard to claim 92, see e.g. Pierce col. 8 lines 16-35 which discloses determining if a shot was fired, and inherently a button input is present in order to determine this shot.

With regard to claim 93, the combination of Bakoglu/Pierce/Yamakita/Ouhyoung/Kelley teaches said first graphical object is a representation of sporting equipment because Pierce illustrates a car game and since race cars are the equipment used by race car drivers it reads on it.

(10) Response to Argument

Appellants' did not provide any argument regarding the obviousness-type double patenting rejection, thus the obviousness-type double patenting rejection is maintained.

Issue 1

Appellants' remarks on pages 17-19 are not persuasive since appellant is reading limitation into the claims. In response to appellants' argument that the references fail to show certain features of applicants' invention, it is noted that the features upon which applicant relies

(i.e., "force feedback command or other similar information can be sent from computer 312 to computer 322, preferably including parameters describing the vibration feel sensation") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In addition, the claims broadly require "haptic feedback information" which can be any type of information that can be used to generate haptic feedback. In Pierce the location information is "haptic feedback information" and is sufficient to make the broad claims obvious. Pierce teaches that when the position information of the projectile and the second vehicle position information coincide a "hit" has occurred and as a result a haptic feedback (thump) is to be generated "to give the user a tactile sensation of the effects of a hit on his vehicle" (Pierce col. 3 lines 52-64) and when the positions do not coincide no haptic feedback is generated. Therefore, it is clear that the position information in Pierce which is sent and received to generate a tactile sensation is "haptic feedback information".

Contrary to appellants' allegations the state information in Yamakita, like Pierce, is broadly "haptic feedback information". As disclosed by Yamakita sections 2-3 the state information sent includes velocity and force information (parameters) to provide a reaction force (haptic feedback) and the example given is that of a tug of war. Thus, Yamakita does teach sending and receiving haptic feedback information as claimed.

Examiner respectfully submits that the combination of Bakoglu, Pierce and Yamakita does teach sending and receiving haptic feedback information in the manner as claimed and that

the rejection of claims 12, 13, 17-13, 36-40, 42, 43, 58-70, 72-76, 78-82, 102-104, 106, 108-111, 113-116, 120, 121 should be sustained.

Issue 2

Appellants' remarks on pages 19-20 are not persuasive since appellant is arguing on the same ground that the combination of references do not teach sending and receiving haptic feedback information. However this is already found to be non-persuasive for the same reasons set forth in the above remarks to issue 1 and are incorporated by reference herein. Examiner respectfully submits that the combination of Bakoglu, Pierce and Yamakita does teach sending and receiving haptic feedback information in the manner as claimed and that the rejection of claims 14-15, 25, 92-96, 98-101, 105, 107 should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Regina Liang/

Primary Examiner, Art Unit 2629

Conferees: